AMENDMENTS TO CLAIMS

1. (**currently amended**) A method ~~for providing a redundant Fibre Channel path~~, comprising:

~~detecting a connection change in a Fibre Channel network; and~~

maintaining a topology database that stores paths through a network which are available to communicably connect a storage node to a host node; and

verifying by [[a]]the storage ~~device~~ node using the topology database that the storage ~~device~~ node has ~~a path~~ at least two paths to ~~a connection associated with the connection change~~ the host node.

2. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has been added to the ~~Fibre Channel~~ network.

3. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has been removed from the ~~Fibre Channel~~ network.

4. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises issuing a state change notification indicating a device has failed and severed a connection to the ~~Fibre Channel~~ network.

5. (**currently amended**) The method of claim 1, wherein the ~~verifying further comprises querying a name table by the storage device to determine whether the storage device has a redundant path to the connection associated with the connection change~~ topology database is maintained by the storage node.

6. (**currently amended**) The method of claim [[1]]48 further comprising moving a World Wide Name and World Wide Port Name associated with the connection change to the storage ~~device~~ node to provide a redundant path to the ~~connection associated with the connection change~~ host.

7. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has been added to an Arbitrated Loop.

8. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has been removed from an Arbitrated Loop.

9. (**currently amended**) The method of claim [[1]]48, wherein the detecting a connection change further comprises receiving an indication from a Loop Initialization Primitive indicating a device has failed and severed a connection to an Arbitrated Loop.

10. (**currently amended**) The method of claim 1, ~~wherein the verifying further comprises querying a Topology Database to determine whether the storage device has a redundant path to the connection associated with the connection change~~ further comprising:

when the verifying step indicates that the storage node has fewer than two paths to the host node, displaying a warning of lack of redundancy.

11. (**currently amended**) The method of claim 1 further comprising moving an Arbitrated Loop Physical Address associated with the connection change to the storage ~~device~~ node to provide a redundant path to ~~a connection associated with the connection change~~ the host.

12. (**currently amended**) The method of claim 1, wherein the verifying ~~further comprises~~ is performed periodically ~~verifying that the storage device has a path to a connection associated with the connection change~~.

13. (**cancelled**)

14. (**currently amended**) The method of claim [[13]]10, ~~wherein the verifying further comprises~~ further comprising:

taking corrective action in response to the warning of lack of redundancy.

15. (**currently amended**) A port adapter for providing a redundant Fibre Channel path, comprising:

a port, within a storage node and coupled to a Fibre Channel network,[[and]]

a topology database that stores paths through the network that are available to communicably connect the storage node to a host node; and

a processor, coupled to the port, the processor configured for detecting a connection change ~~in a Fibre Channel network~~ between the storage node and a host node, and verifying using the topology database that the port has ~~a path~~ at least two such paths to ~~a connection associated with the connection change~~ the host node[[,]]

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~~wherein the port adapter is included in a storage device or in the Fibre Channel network.~~

16. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has been added to the Fibre Channel network.

17. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has been removed from the Fibre Channel network.

18. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a state change notification indicating a device has failed and severed a connection to the Fibre Channel network.

19. (**currently amended**) The port adapter of claim 15, wherein the processor verifies the port has a path to a connection associated with the connection change by querying a name table to determine whether the port is coupled via a redundant path to the ~~connection associated with the connection change~~ host.

20. (**currently amended**) The port adapter of claim 15, wherein a World Wide Name and World Wide Port Name associated with the connection change [[is]]are changed to be associated with the port to provide a redundant path to the ~~connection associated with the connection change~~ host.

21. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been added to an Arbitrated Loop.

22. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been removed from an Arbitrated Loop.

23. (**previously presented**) The port adapter of claim 15, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has failed and severed a connection to an Arbitrated Loop.

24. (**currently amended**) The port adapter of claim 15, wherein the ~~processor verifies the port has a path to a connection associated with the connection change by querying a Topology Database to determine whether the port is coupled via a redundant path to the connection associated with the connection change.~~ topology database is maintained by the storage node.

25. (**previously presented**) The port adapter of claim 15 further comprising an Arbitrated Loop Physical Address associated with the connection change, wherein the Arbitrated Loop Physical Address associated with the connection change is changed to be associated with the port to provide a redundant path to the connection associated with the connection change.

26. (**previously presented**) The port adapter of claim 15, wherein the processor verifies the port has a path to a connection associated with the connection change by periodically verifying the port has a path to a connection associated with the connection change.

27. (**previously presented**) The port adapter of claim 15, wherein the processor provides a warning of lack of redundancy when the port does not have a path to a connection associated with the connection change.

28. (**previously presented**) The port adapter of claim 27, wherein the processor takes corrective action in response to the warning of lack of redundancy.

29. (**currently amended**) A network providing a redundant Fibre Channel path, comprising:

a local node within a storage device; and

a Fibre Channel network coupling the local node and [[the]]a remote host node,

wherein at least one of the local node and the Fibre Channel network includes a first physical interface and a backup physical interface, wherein the backup physical interface further comprises:

a port coupled to a Fibre Channel network, and

a processor, coupled to the port, the processor configured for detecting a connection change in a Fibre Channel network and verifying the backup physical interface has a path to a connection associated with the host node after the connection change.

30. (**original**) The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating a device has been added to the Fibre Channel network.

31. (**original**) The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating the first physical interface has been removed from the Fibre Channel network.

32. (**original**) The network of claim 29, wherein the processor detects a connection change in response to a state change notification indicating the first physical interface has failed and severed a connection to the Fibre Channel network.

33. (**currently amended**) The network of claim 29, wherein the processor verifies the backup physical interface has a path to ~~a connection associated with the connection change~~ the host by querying a name table ~~to determine whether the backup physical interface is coupled via a redundant path to the connection associated with the connection change~~.

34. (**currently amended**) The network of claim 29, wherein a World Wide Name and World Wide Port Name associated with the connection change [[is]]are changed to be associated with the backup physical interface to provide a redundant path to the ~~connection associated with the connection change~~ host.

35. (**currently amended**) The network of claim 29, wherein the processor verifies the backup physical interface has a path to ~~a connection associated with the connection change~~ the host [[by]] periodically ~~verifying the backup physical interface has a path to a connection associated with the connection change~~.

36. (**previously presented**) The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been added to an Arbitrated Loop.

37. (**previously presented**) The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has been removed from an Arbitrated Loop.

38. (**previously presented**) The network of claim 29, wherein the processor detects a connection change in response to a Loop Initialization Primitive indicating a device has failed and severed a connection to an Arbitrated Loop.

39. (**currently amended**) The network of claim 29, wherein the processor verifies the port has a path to ~~a connection associated with the connection change~~ the host by querying a Topology Database ~~to determine whether the port is coupled via a redundant path to the connection associated with the connection change~~.

40. (**currently amended**) The network of claim 29 further comprising an Arbitrated Loop Physical Address associated with the connection change, wherein the Arbitrated Loop Physical Address associated with the connection change is changed to

be associated with the port to provide a redundant path to the ~~connection associated with the connection change~~ host.

41. (**currently amended**) The network of claim 29, wherein the processor provides a warning of lack of redundancy when the backup physical interface does not have a path to ~~a connection associated with the connection change~~ the host.

42. (**original**) The network of claim 41, wherein the processor takes corrective action in response to the warning of lack of redundancy.

43. (**currently amended**) A program storage device readable by a processor, the program storage device tangibly embodying one or more programs of instructions executable by the processor to perform a method for providing a redundant Fibre Channel path, the method comprising:

~~detecting a connection change in a Fibre Channel network; and~~

maintaining a topology database that stores paths in a Fibre Channel network which are available to communicably connect a storage node to a host node; and

verifying ~~a backup device~~ by the storage node using the topology database that the storage node has ~~a path~~ at least two paths to ~~a connection associated with the connection change~~ the host node,

wherein the processor is included in the storage device or in the Fibre Channel network.

44. (**currently amended**) The program storage device of claim 43, wherein the verifying further comprises querying a name table ~~by the backup device to determine whether the backup device has a redundant path to the connection associated with the connection change~~ stored in the Fibre Channel network.

45. (**currently amended**) The program storage device of claim 43 further comprising moving a World Wide Name and World Wide Port Name associated with [[the]]a connection change to the backup device to provide a redundant path to the ~~connection associated with the connection change~~ host.

46. (**currently amended**) A device for providing a redundant Fibre Channel path, comprising:

Means, within a storage node or a Fibre Channel network, for providing a port to the Fibre Channel network, and

means, within the storage node or the Fibre Channel network, for processing coupled to the means for providing a port, the means for processing detecting a

connection change in a Fibre Channel network and verifying the means for providing a port has a path to a ~~connection associated with~~ a host after the connection change.

47. (**currently amended**) A network providing a redundant Fibre Channel path, comprising:

a local node within a storage device; and

a Fibre Channel network coupling the local node and [[the]]a remote host node,

wherein at least one of the local node and the Fibre Channel network includes a first means for providing a physical interface and a second means for providing a backup physical interface, wherein the second means further comprises:

means for providing a port to a Fibre Channel network, and

means for processing coupled to the means for providing a port, the means for processing detecting a connection change in a Fibre Channel network and verifying the backup physical interface has a path to ~~a connection associated with~~ the host node after the connection change.

48. (**new**) The method of claim 1, further comprising:

detecting a connection change in a path from the storage node to the host node.

49. (**new**) The method of claim 48, further comprising:

without interruption of operations, using a redundant path, found in the topology database, for communications between the storage node and the host node.

50. (**new**) The method of claim 5, further comprising:

maintaining a second topology database, which stores paths in a network available to communicably connect the host node to the storage node, wherein the second topology database is maintained by the host node; and

verifying by the host node using the second topology database whether the host node has at least two paths to the storage node.

51. (**new**) The method of claim 10, wherein displaying the warning occurs while there are no problems of communication between the storage node and the host node using an existing path.